



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

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Washington, D.C. 20231

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
|-----------------|-------------|----------------------|---------------------|

09/284,030 04/06/99 BITTLESTON

S 14.0088

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| EXAMINER |
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MM91/0326

GEO QUEST
INTELLECTUAL PROPERTY LAW DEPT
5599 SAN FELIPE
SUITE 1700
HOUSTON TX 77056

| | |
|-----------------------|--------------|
| TAYLOR, V ART UNIT | PAPER NUMBER |
|-----------------------|--------------|

2862
DATE MAILED:

03/26/01

03/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Notice of Allowability

Application No.

09/284,030

Examiner

Victor J Taylor

Applicant(s)

BITTLESTON, SIMON HASTINGS

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/21/2001.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 06 April 1999 are acceptable as formal drawings.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION. This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).**

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☐ Applicant MUST submit NEW FORMAL DRAWINGS
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review(PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

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Response to Amendment

Claim Rejections - 35 U.S.C. § 102

1. The amendments to the claims combined with the supplemental amendment received on 3/21/2001 in paper 6, and which defines and narrows the limitations for claim 1 in which the control device of, “an elongated body mechanically connected in series between two sections of streamer cable”, and combined with the sensor for angular position detection and combined with the control means to adjust the lateral and vertical position and combined with the amended limitation of, “a quick release attachment interconnected between each of the control surfaces and the elongated body adapted for releasable securing the control surfaces to the elongated body.”, overcomes the prior art. These amended limitations with support in the specifications and drawings are not found in the prior art of record. The Prior art does not teach the elongated control body in series with the streamer cable with vertical and lateral control means and combined with the quick release attachment to release the control device. The prior art is overcome and the 102(b) rejection is removed.

Allowable Subject Matter

2. Claims 1, to 12, are allowed. Claim 13, 14, and 15 have been canceled by the applicant.

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Reasons For Allowance

3. The following is an examiner's statement of reasons for allowance:

The invention teaches a method for lateral and vertical seismic streamer cable control using position sensor and control electronics to positioned the towed seismic streamer and provides for an improved seismic bird detachment feature which improves the cable and reel retrieval times and reduces operating cost, and combined with;

A. Independent claim 1 (Amended), is allowable over the art of record because the prior art does not teach a control device for controlling the position of a marine seismic streamer, the device comprising an elongate body mechanically connected in series between two adjacent sections of the streamer, and with sensor means in the body for determining its angular position in a plane approximately perpendicular to the longitudinal axis of the streamer, with two opposed control surfaces projecting outwardly from the elongate body, and each control surface being rotatable about an axis which in use extends transversely of the streamer, with the control means responsive to control signals and with the sensor means for independently adjusting the respective angular positions of said two control surfaces so as to control the lateral position of the streamer as well as its depth, and with a quick release attachment interconnected between each of the control surfaces and the elongate body adapted for releasable securing the control surfaces to the elongated body and with;

B. Claims 2-12, are allowable as being dependent upon an allowed independent claim.

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It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.".

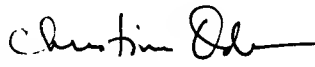
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Taylor, Art Unit 2862, whose telephone number is (703) 305-4470.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose number is (703) 308-0956.


Examiner V. J. Taylor.

March 22, 2001


SPE Christine Oda.

CHRISTINE ODA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

MM9170326

DEO QUEST
INTELLECTUAL PROPERTY LAW DEPT
5592 SAN FELIPE
SUITE 1700
HOUSTON TX 77056

| APPLICATION NO. | FILING DATE | TOTAL CLAIMS | EXAMINER AND GROUP ART UNIT | DATE MAILED |
|-----------------------|---|--------------|-----------------------------|-------------|
| 09/284,030 | 04/06/99 | 012 | TAYLOR, V 2862 | 03/26/01 |
| First Named Applicant | BUTTLESTON, 35 USC 154(b) term ext. = 0 Days. | | | |

TITLE OF INVENTION CONTROL DEVICES FOR CONTROLLING THE POSITION OF A MARINE SEISMIC STREAMER

| ATTY'S DOCKET NO. | CLASS-SUBCLASS | BATCH NO. | APPLN. TYPE | SMALL ENTITY | FEE DUE | DATE DUE |
|-------------------|----------------|-----------|-------------|--------------|-----------|----------|
| 2 14.0088 | 367-018.000 | D97 | UTILITY | NO | \$1240.00 | 06/26/01 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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